WEST Search History

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DATE: Saturday, June 25, 2005

Hide?	Set Name	Query	Hit Count
	DB=PGPB,USPT,USOC,EPAB,JPAB,DWPI; PLUR=YES; OP=ADJ		
☐	L25	3941733.pn.	4
☐	L24	L23 and (silane or silyl)	28
☐	L23	L22 and l17	60
☐	L22	(424/70.1,70.122,401,61,78.03).ccls. or (528/28).ccls. or (514/937).ccls.	10900
☐	L21	4872867.pn.	2
☐	L20	L19 and (cosmetic or skin or nail)	18
☐	L19	L18 and (silane or silyl)	53
☐	L18	L17 and l4	409
☐	L17	polyurethane urea	3462
☐	L16	L15 and cosmetic	41
☐	L15	l10 and l4	131
☐	L14	l11 and silyl	0
☐	L13	l11 and silane	0
☐	L12	L11 and l10	0
☐	L11	l6 or l7	26
☐	L10	L9 and silane	722
☐	L9	L8 and urea	5802
☐	L8	polyurethane and l3	38588
☐	L7	5637292.pn.	2
☐	L6	5626840.pn. or 5968494.pn. or 6007793.pn.or 6106808.pn. or 6106809.pn. or 6113881.pn. or 5643581.pn. or 5962620.pn. or 5972354.pn. or 5965111.pn. or 6080413.pn. or 6106813.pn.	24
☐	L5	polyurethane-urea and silyl group	10
☐	L4	aqueous dispersion	75872
☐	L3	skin or nail	588212
	DB=USPT; PLUR=YES; OP=ADJ		
☐	L2	6520186[uref]	1
☐	L1	6520186.pn.	1

END OF SEARCH HISTORY

09771054

(FILE 'HOME' ENTERED AT 08:34:04 ON 25 JUN 2005)

FILE 'CAPLUS, USPATFULL' ENTERED AT 08:35:04 ON 25 JUN 2005

```
L1          4278 S POLYURETHANE (2A) UREA
L2        208389 S SILANE OR SILYL
L3            68 S L1 (P) L2
L4        174917 S COSMETIC OR NAIL
L5             6 S L3 AND L4
L6             5 DUP REM L5 (1 DUPLICATE REMOVED)
L7        129788 S COSMETIC
L8             6 S L3 AND L7
L9             5 DUP REM L8 (1 DUPLICATE REMOVED)
L10           62 S L3 NOT L5
L11           60 DUP REM L10 (2 DUPLICATES REMOVED)
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Blessing

L11 ANSWER 50 OF 60 USPATFULL on STN
ACCESSION NUMBER: 91:104082 USPATFULL
TITLE: Silver halide color photosensitive material having a reflective support and a specified volume ratio
INVENTOR(S): Shiba, Keisuke, Kanagawa, Japan
Ogawa, Tadashi, Kanagawa, Japan
PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Kanagawa, Japan (non-U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 5075204		19911224	
APPLICATION INFO.:	US 1990-492501		19900313	(7)

	NUMBER	DATE
PRIORITY INFORMATION:	JP 1989-59750	19890313

DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Bowers, Jr., Charles L.
ASSISTANT EXAMINER: Doody, Patrick A.
LEGAL REPRESENTATIVE: Sughrue, Mion, Zinn, Macpeak & Seas
NUMBER OF CLAIMS: 22
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 2 Drawing Figure(s); 1 Drawing Page(s)
LINE COUNT: 2114
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A silver halide color photosensitive material comprising a support having a metal surface with secondary diffuse reflection and a total reflectance of 0.5 or more in the visible wavelength region of 420 to 680 nm, said support having provided thereon a photosensitive silver halide emulsion layer containing a yellow coupler, a photosensitive silver halide emulsion layer containin a magenta coupler, and a photosensitive silver halide emulsion layer containing a cyan coupler and at least one non-photosensitive hydrophilic colloid layer, wherein the volume ratio R of the hydrophilic constituents in each photosensitive silver halide emulsion layer with respect to the non-hydrophilic constituents therein is 1.30 or less, and the photosensitive silver halide emulsion layer containing a color coupler which is arranged nearest the support has an R value of 1.20 or less.

DETD . . . the Ionomer Resins (trade name: manufactured by Mitsui Polychemical Co.) described in JP-A-63-118154, the styrene-butadiene resins described in JP-A-63-253354, the **silane** coupling agents described in JP-A-63-253353, the vinylidene chloride copolymers described in Japanese Patent Application 62-291486 and the mixture of vinylidene chloride copolymers and **polyurethane urea** resins described in JP-A-1-255856 and Japanese Patent Application 63-176327 and particularly, amongst the **silane** coupling agents, **silanes** containing epoxy groups, **silanes** containing isocyanate groups and aminosilanes are useful.

L11 ANSWER 51 OF 60 USPATFULL on STN
ACCESSION NUMBER: 91:79876 USPATFULL
TITLE: Method for processing silver halide color photographic materials having a reflective support
INVENTOR(S): Shiba, Keisuke, Kanagawa, Japan
Abe, Akira, Kanagawa, Japan
PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Kanagawa, Japan (non-U.S.

corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 5053322		19911001	
APPLICATION INFO.:	US 1989-427560		19891027	(7)

	NUMBER	DATE
PRIORITY INFORMATION:	JP 1988-271613	19881027
	JP 1989-165652	19890628

DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Bowers, Jr., Charles L.
ASSISTANT EXAMINER: Doody, Patrick A.
LEGAL REPRESENTATIVE: Sughrue, Mion, Zinn, Macpeak & Seas
NUMBER OF CLAIMS: 9
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 7 Drawing Figure(s); 5 Drawing Page(s)
LINE COUNT: 3134
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A method for processing a silver halide color photographic material is disclosed, comprising a support having a thin film of metal or metal oxide on a substrate; said thin film having mirror surface reflection properties or secondary diffuse reflection properties and having a surfaced reflectance of at least 0.5; said photographic material having thereon, in order outwardly from the support, an adhesive layer and at least one light-sensitive silver halide emulsion layer, by the steps which comprise developing the silver halide color photographic material with a developing bath containing a color developing agent and at least one compound represented by formulae (I), (II), (III) or (IV): ##STR1## wherein M each represents hydrogen, an alkali metal or an ammonium group; and R.sub.1 represents a lower alkyl group; ##STR2## wherein R.sub.2 R.sub.3 and R.sub.4 each represents --COOM, --PO.sub.3 M.sub.2 or a hydroxyl group, wherein M represents hydrogen, an alkali metal atom or an ammonium group, provided that at most one group represented by R.sub.2, R.sub.3 and R.sub.4 represents a hydroxyl group; and n is an integer of 1 to 3; ##STR3## wherein R.sub.5, R.sub.6, R.sub.7 and R.sub.8 each represents --COOM, --PO.sub.3 M.sub.2 or a hydroxyl group, wherein M represents hydrogen, an alkali metal atom or an ammonium group, provided that at most two of R.sub.5, R.sub.6, R.sub.7 and R.sub.8 represent a hydroxyl group; m is an integer of 1 to 4; and p is 1 or 2; ##STR4## wherein Z represents an atomic group necessary for forming a substituted or unsubstituted aromatic nucleus.

DETD . . . coated thereon, such as an ionomer resin as disclosed in JP-A-63-118154, a styrene/butadiene based resin as disclosed in JP-A-63-253354, a **silane** coupling agent as disclosed in JP-A-63-253353, a vinylidene chloride copolymer as disclosed in Japanese Patent Application No. 62-291486, a mixture of a vinylidene chloride copolymer and a **polyurethane/urea** resin as disclosed in Japanese Patent Application No. 63-84667 or 63-176327, or a system in which epoxy group containing **silanes**, isocyanate group containing **silanes** or amino **silanes** are included in a **silane** coupling agent, is preferably used in the adhesive layer of the present invention. Particularly, in the present invention, the adhesive. . .

L11 ANSWER 52 OF 60 USPATFULL on STN
ACCESSION NUMBER: 91:39775 USPATFULL

09771054

TITLE: Applicator for highly reactive materials
INVENTOR(S): Batson, Robert E., Newington, CT, United States
PATENT ASSIGNEE(S): Dexus Research Inc., Newington, CT, United States (U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 5016784		19910521	
APPLICATION INFO.:	US 1990-481448		19900215	(7)

DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Huppert, Michael S.
ASSISTANT EXAMINER: Huson, Gregory L.
LEGAL REPRESENTATIVE: Daniel J. Hudak Co.
NUMBER OF CLAIMS: 19
EXEMPLARY CLAIM: 1,19
NUMBER OF DRAWINGS: 4 Drawing Figure(s); 2 Drawing Page(s)
LINE COUNT: 378

AB An applicator syringe for containing and dispensing moisture-sensitive or moisture-reactive adhesives comprises a generally sealed barrel containing a plunger having a non-stick polymeric seal and a hydrocarbon grease disposed between the seal and the adhesive contained in the barrel. As the plunger advances in the barrel, a sealing, thin film of the hydrocarbon grease is deposited on the interior walls of the syringe barrel to provide a moisture-impervious seal between the polymeric seal and barrel and to aid in smooth advancement of the plunger in the barrel.

DETD . . . typically comprising the reaction product of polyether polyol and excess equivalents of aromatic diisocyanate which reacts with moisture to produce **polyurethane urea** bonds;
silicone adhesives comprising blocked hydroxyl functional compounds rendered moisture curable in the presence of hydrolyzable **silyl** compounds such as acetates, oximes, esters and amines; polysulfide sealants compounded with calcium or barium peroxide activated by moisture to. . .

L11 ANSWER 53 OF 60 USPATFULL on STN
ACCESSION NUMBER: 91:36454 USPATFULL
TITLE: Process for the production of glass fiber reinforced composite material
INVENTOR(S): Guillet, Antoine, Divonne-les-Bains, France
Osterholtz, Fred D., Pleasantville, NY, United States
PATENT ASSIGNEE(S): Union Carbide Chemicals and Plastics Technology Corporation, Danbury, CT, United States (U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 5013771		19910507	
APPLICATION INFO.:	US 1989-454716		19891221	(7)

DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Michl, Paul R.
ASSISTANT EXAMINER: Hellender, Karen A.
LEGAL REPRESENTATIVE: Deppenbrock, Bonnie L.
NUMBER OF CLAIMS: 34
EXEMPLARY CLAIM: 1
LINE COUNT: 824
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

09771054

AB A glass fiber-reinforced composite material is produced by treating glass fibers with a silane composition comprising silane molecules having amine functional groups and silane molecules having ethylenically-unsaturated functional groups; admixing the treated glass fibers with a polyolefin resin, and a fiber bonding agent comprising a polymerizable unsaturated organic compound having at least two polymerizable unsaturation groups, a vinyl-polymerizable unsaturated, hydrolyzable silane, and a free radical generator, and exposing the resultant mixture to conditions of temperature and pressure sufficient to cause the formation of a glass fiber-reinforced composite material. The use of the silane composition promotes improved impact strength of the composite.

SUMM As is conventional in the art, in the present process the **silane** composition may have the form of a size bath containing components other than the **silane**(s). Desirably, such a size bath may contain from 0.1 to 2 percent by weight of **silane**. Typically, such a size bath also comprises a film-forming material, for example at least one of a polyvinyl acetate, an acrylate, a polyolefin, a polyester, a phenoxy resin, a phenol-formaldehyde resin, a **urea**, a **polyurethane**, and an epoxy resin. The preferred film-forming materials for use in the present process are epoxy resins, since epoxy resins. . .

L11 ANSWER 54 OF 60 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1990:236466 CAPLUS
DOCUMENT NUMBER: 112:236466
TITLE: Manufacture of glass fiber mats using aqueous polyisocyanate emulsions
INVENTOR(S): Markusch, Peter H.
PATENT ASSIGNEE(S): Mobay Corp., USA
SOURCE: Brit. UK Pat. Appl., 18 pp.
CODEN: BAXXDU
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
GB 2221216	A1	19900131	GB 1989-16953	19890725
US 4904522	A	19900227	US 1988-224847	19880726
CA 1325558	A1	19931228	CA 1989-601722	19890605

PRIORITY APPLN. INFO.: US 1988-224847 A 19880726

AB Glass fiber mats are manufactured by binding glass fibers with binders based on aqueous polyisocyanate emulsions which do not contain water glass. Thus, an aqueous polyisocyanate dispersion was prepared by reacting 4,4'-diphenylmethane diisocyanate-tripropylene glycol reaction product 80, a polyether monoalc. of BuOH, ethylene oxide, and propylene oxide 24 weight parts were reacted at 80-90° to give a hydrophilic polyisocyanate prepolymer, 12 lbs. of which was mixed with 11 g (MeO)3Si(CH2)3NHCH2NH2 and 28 lbs. H2O. The aqueous polyisocyanate dispersion (containing 30% solids) was applied at a rate of 4.1% on glass fibers and then cured at 400°F for 12 min showing tensile strength 33.0 psi at a dry weight 0.1442 lb, compared with 30 psi at 0.130 lb dry weight for glass fiber mats using 6-8% standard phenol-formaldehyde resin cured at 450°F for 20 min.

ST polyisocyanate emulsion binder glass fiber; **polyurethane** **urea** binder glass fiber; **silane** glass fiber binder

Blessing

09771054

L11 ANSWER 55 OF 60 USPATFULL on STN
ACCESSION NUMBER: 90:19498 USPATFULL
TITLE: Photographic support
INVENTOR(S): Fuchizawa, Tetsuro, Shizuoka, Japan
Koike, Kazuyuki, Shizuoka, Japan
PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Kanagawa, Japan (non-U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 4908295		19900313	
APPLICATION INFO.:	US 1989-301764		19890126	(7)

	NUMBER	DATE
PRIORITY INFORMATION:	JP 1988-14896	19880126
	JP 1988-84667	19880406

DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Le, Hoa Van
LEGAL REPRESENTATIVE: Sughrue, Mion, Zinn, Macpeak & Seas
NUMBER OF CLAIMS: 2
EXEMPLARY CLAIM: 1
LINE COUNT: 768
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB A photographic support having a secondary diffuse-reflective surface is disclosed, wherein a thin metal layer is provided on the matted surface of a substrate and the center plane average roughness, as determined by a three dimensional roughness measuring apparatus, of the thin metal layer is 0.1 to 1.2 μm.
SUMM . . . ionomer resin as described in JP-A-63-118154, a styrene-butadiene based resin as described in Japanese Patent Application No. 62-87637, and a **silane** coupling agent as described in Japanese Patent Application No. 62-87636 and vinylidene chloride can be used. Of these, it is. . . a copolymer containing vinylidene chloride, vinyl chloride, vinyl acetate and maleic anhydride and 5 to 60% by weight of a **polyurethane urea** resin.
The copolymer of vinylidene chloride, vinyl chloride, vinyl acetate and maleic anhydride is preferably a copolymer of (a) 5. . .

L11 ANSWER 56 OF 60 USPATFULL on STN
ACCESSION NUMBER: 90:2682 USPATFULL
TITLE: Ceramic articles with a polymer component and methods of making same
INVENTOR(S): Newkirk, Marc S., Newark, DE, United States
PATENT ASSIGNEE(S): Lanxide Technology Company, LP, Newark, DE, United States (U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 4892786		19900109	
APPLICATION INFO.:	US 1987-67522		19870626	(7)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 1986-908054, filed on 16 Sep 1986, now abandoned			

DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Page, Thurman K.
LEGAL REPRESENTATIVE: Mortenson, Mark G., McShane, William E.
NUMBER OF CLAIMS: 18

Blessing

EXEMPLARY CLAIM: 10
NUMBER OF DRAWINGS: 8 Drawing Figure(s); 3 Drawing Page(s)
LINE COUNT: 749
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A method of producing self-supporting ceramic or ceramic composite bodies having a polymer component, which includes first providing a self-supporting ceramic or ceramic composite body comprising (i) a polycrystalline oxidation reaction product formed upon oxidation of a molten parent metal with an oxidant, and (ii) interconnected porosity at least partially accessible from one or more surfaces of said ceramic body. The polymer is disposed or formed within the interconnected porosity. The polymer is situated so as to alter, modify or contribute to the properties of the ceramic or ceramic composite body originally formed.

DETD Other suitable polymers include, by way of example only, polyesters, polyamides (nylon), polycarbonates, phenol-formaldehydes, **urea** -formaldehydes, **polyurethane**, epoxies from ethylene oxide, silicones and **silanes**. Also, naturally occurring polymers, such as rosin and shellac(s), as well as rubber solutions (e.g. rubber cement), are also suitable. . . .

L11 ANSWER 57 OF 60 USPATFULL on STN
ACCESSION NUMBER: 89:83880 USPATFULL
TITLE: Compositions having antithrombogenic properties and blood contact medical devices using the same
INVENTOR(S): Joh, Yasushi, Yokohama, Japan
PATENT ASSIGNEE(S): UBE Industries, Ltd., Ube, Japan (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 4872867		19891010
APPLICATION INFO.:	US 1989-317108		19890228 (7)

RELATED APPLN. INFO.: Continuation of Ser. No. US 1987-33157, filed on 30 Jan 1987, now abandoned

	NUMBER	DATE
PRIORITY INFORMATION:	JP 1985-133194	19850619
	JP 1985-133195	19850619

DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Rosenbaum, C. Fred
ASSISTANT EXAMINER: Rose, Sharon
LEGAL REPRESENTATIVE: Frishauf, Holtz, Goodman & Woodward
NUMBER OF CLAIMS: 14
EXEMPLARY CLAIM: 1
LINE COUNT: 666
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB This invention is a composition having anti-thrombogenic properties, comprising as essential constituent components a polyurethane or polyurethane urea containing polytetramethylene oxide in its main chain, a water soluble and/or water swellable macromolecules, and a silicon-containing compound capable of forming polysiloxane while crosslinking; and a blood contact medical device having such a composition on blood contact surfaces. According to this invention, it is possible to provide on blood contact surfaces a hydrophilic polymer which is excellent in dynamic properties and very rich in the antithrombogenic properties, and the invention can be greatly contributory in the field of blood contact medical devices.

09771054

CLM What is claimed is:
1. An antithrombogenic material having an interpenetrating polymer network which comprises (1) a polyether type **polyurethane** or **polyurethane urea** containing in its main chain a segment comprising polytetramethylene oxide; (2) a water soluble polymer, a water swellable polymer or a combination thereof; and (3) a room temerpature cross-linking type **silane** coupling agent capable of being activated by water and induced condensation polymerization with crosslinking which is crosslinked to form a hydrophobic highly crosslinked polysiloxane network in which network the polyether type **polyurethane** or **polyurethane urea**, and the water soluble polymer, the water swellable polymer or combination thereof, are entangled.

L11 ANSWER 58 OF 60 USPATFULL on STN
ACCESSION NUMBER: 87:31636 USPATFULL
TITLE: Ferro-electric liquid crystal electro-optical device
INVENTOR(S): Harada, Takamasa, Tokyo, Japan
Taguchi, Masaaki, Tokyo, Japan
Ito, Kokichi, Tokyo, Japan
PATENT ASSIGNEE(S): Seiko Instruments & Electronics Ltd., Tokyo, Japan (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 4662721		19870505
APPLICATION INFO.:	US 1985-750092		19850628 (6)

	NUMBER	DATE
PRIORITY INFORMATION:	JP 1984-142944	19840710
	JP 1984-215366	19841015
	JP 1985-77783	19850412

DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Griffin, Donald A.
LEGAL REPRESENTATIVE: Burns, Robert E., Lobato, Emmanuel J., Adams, Bruce L.
NUMBER OF CLAIMS: 19
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 9 Drawing Figure(s); 4 Drawing Page(s)
LINE COUNT: 404
AB A ferro-electric liquid crystal electro-optical device comprising two plates having electrodes, and ferro-electric liquid crystals, for example, chiral smetic crystals, sandwiched between the plates. The inner surface of one of the two plates has a uni-axial alignment characteristic which aligns the liquid crystal molecules in its uni-axial direction. The inner surface of the other plate has a random homogeneous characteristic which aligns the molecules nearly parallel to the plates but does not let the molecules have any predetermined directional characteristic.
DETD . . . as the material to be used to form the uni-axial alignment layer, organic films such as poly vinyl alcohol, fluororesin, **silane**, or a SiO.sub.2 oblique vacuum evaporation film can be utilized, and, as the material to form the random homogeneous alignment film of the other plate, besides polyimide, organic films such as epoxy, poly vinyl alcohol, fluororesin, **polyurethane**, **silane**, phenol, **urea**, and inorganic films which are formed by vacuum evaporation of such material as Si O.sub.2 or Mg F.sub.2, can be. . .

Blessing

09771054

CLM What is claimed is:
. . . characteristic is obtained by providing a layer made of at least one of polyimide, epoxy, poly vinyl alcohol, fluorine-containing polymers, **polyurethane**, **silane**, phenol, **urea**, SiO.sub.2 and Mg F.sub.2, on the inner surface of the other plate, without rubbing.

L11 ANSWER 59 OF 60 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1986:51571 CAPLUS
DOCUMENT NUMBER: 104:51571
TITLE: Chemically treated glass fibers and strands and their dispersed products
INVENTOR(S): Gaa, Peter C.
PATENT ASSIGNEE(S): PPG Industries, Inc. , USA
SOURCE: U.S., 20 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 4542065	A	19850917	US 1984-612536	19840521
CA 1254086	A1	19890516	CA 1985-481300	19850510
EP 162421	A2	19851127	EP 1985-106062	19850517
EP 162421	A3	19861126		
EP 162421	B1	19910807		
R: BE, CH, DE, FR, GB, IT, LI, NL				
JP 60255650	A2	19851217	JP 1985-108068	19850520
JP 05045533	B4	19930709		

PRIORITY APPLN. INFO.: US 1984-612536 A 19840521

AB An aqueous dispersion applied to plastic-reinforcing glass fibers to improve their chopping and handling characteristics contains a polyurethane resin with .gtorsim.0.1% (based on water) pendant **silyl** groups, siliconate anions for most of the **silyl** groups (sic), and dispersing and lubricating agents, at pH >7. Thus, Tone 0200 (polyester diol, mol. weight .apprx.530) 344.07, 1,4-butanediol 1.80, Carbowax 1450 (polyoxyethylene polyol) 1.450, A-1122 [N-(β-aminoethyl)-γ-aminopropyltrimethoxysilane] coupling agent 6.67, and N-methylpyrrolidone 66.74 g were polymerized with 375.20 g Desmodur W [methylenebis(4-cyclohexyl isocyanate)] at 70-90° to give a **silyl** group-containing polyurethane solution, which was mixed with dimethylolpropionic acid, heated to 75-80° until the acid value reached 17.7-18.5, then neutralized with Et3N and poured into H2O to give a urethane prepolymer emulsion. The prepolymer was chain-extended with H2NCH2CH2NH2 to give a 62%-solids **silyl** group-containing **polyurethane-urea** (I) emulsion having pH 10. A mixture (pH 10) containing I 14,998, Pluracol V-10 (polyoxypropylene polyol) 22, polyester film former 2610, and H2O 38,494.4 g was applied to glass fibers of filament diameter G, which were dried and chopped to give 0.125-in. coated fibers with good handling properties. Nylon reinforced with 32.1% these fibers had tensile strength 28.8 + 103 psi and yellowing index (after 12 days under UV light) 4.60; compared with 25.4 + 103 psi and 6.11 using a com. polyurethane dispersion.
AB An aqueous dispersion applied to plastic-reinforcing glass fibers to improve their chopping and handling characteristics contains a polyurethane resin with .gtorsim.0.1% (based on water) pendant **silyl** groups, siliconate anions for most of the **silyl** groups (sic), and

dispersing and lubricating agents, at pH >7. Thus, Tone 0200 (polyester diol, mol. weight .apprx.530) 344.07, 1,4-butanediol 1.80, Carbowax 1450 (polyoxyethylene polyol) 1.450, A-1122 [N-(β-aminoethyl)-γ-aminopropyltrimethoxysilane] coupling agent 6.67, and N-methylpyrrolidone 66.74 g were polymerized with 375.20 g Desmodur W [methylenebis(4-cyclohexyl isocyanate)] at 70-90° to give a **silyl** group-containing polyurethane solution, which was mixed with dimethylolpropionic acid, heated to 75-80° until the acid value reached 17.7-18.5, then neutralized with Et3N and poured into H2O to give a urethane prepolymer emulsion. The prepolymer was chain-extended with H2NCH2CH2NH2 to give a 62%-solids **silyl** group-containing **polyurethane-urea** (I) emulsion having pH 10. A mixture (pH 10) containing I 14,998, Pluracol V-10 (polyoxypropylene polyol) 22, polyester film former 2610, and H2O 38,494.4 g was applied to glass fibers of filament diameter G, which were dried and chopped to give 0.125-in. coated fibers with good handling properties. Nylon reinforced with 32.1% these fibers had tensile strength 28.8 + 103 psi and yellowing index (after 12 days under UV light) 4.60; compared with 25.4 + 103 psi and 6.11 using a com. polyurethane dispersion.

L11 ANSWER 60 OF 60 USPATFULL on STN

ACCESSION NUMBER:	76:3507 USPATFULL
TITLE:	Process of preparation of synthetic resins by reacting a cross-linked isocyanate polyaddition product with low molecular weight polyisocyanate followed by reaction with an amino alkyl silane
INVENTOR(S):	Wagner, Kuno, Leverkusen, Germany, Federal Republic of
PATENT ASSIGNEE(S):	Bayer Aktiengesellschaft, Leverkusen Bayerwerk, Germany, Federal Republic of (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 3933756		19760120
APPLICATION INFO.:	US 1975-546492		19750203 (5)
RELATED APPLN. INFO.:	Continuation of Ser. No. US 1973-380421, filed on 18 Jul 1973, now abandoned		

	NUMBER	DATE
PRIORITY INFORMATION:	DE 1972-2238741	19720805

DOCUMENT TYPE:	Utility
FILE SEGMENT:	Granted
PRIMARY EXAMINER:	Welsh, M. J.
LEGAL REPRESENTATIVE:	Gil, Joseph C., Harsh, Gene
NUMBER OF CLAIMS:	9
EXEMPLARY CLAIM:	1
LINE COUNT:	833

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Isocyanate polyaddition products which are cross-linked via allophanate, biuret, or uretdione imine groups are linearized by reacting them in the presence of polar solvents with low molecular weight polyisocyanates at temperatures between 90° and 200°C and then preferably reacting the linearized product with amino alkyl silane derivatives to prepare products which are easily cross-linked by atmospheric moisture to form soft highly elastic films.

DETD A completely gel-free, approximately 25.7% solution of a mixture of about 100.5 parts by weight of a high-molecular weight linearized **polyurethane** with **silyl urea** end groups and 36 parts by weight of ##EQU12## is obtained.